

Asthma Care Guide

November 2021



CALIFORNIA CORRECTIONAL
HEALTH CARE SERVICES

SUMMARY

GOALS

- ✓ Classify patients by asthma severity
- ✓ Enter specific asthma diagnosis on Problem List
- ✓ Manage treatment using NAEPP EPR-3STEPWISE APPROACH¹
- ✓ Engage patients in their care with use of Asthma Action Plan and Asthma Control Test (ACT) as indicated
- ✓ Prevent exacerbations and minimize adverse effects of therapy

ALERTS

- Poor control: Increases symptoms, Increases SABA use, Decreases PEF*, etc.
- SaO₂ < 92 %
- Can't speak more than one to two words per breath
- PEF < 50% predicted or personal best
- Silent chest, cyanosis, confusion

DIAGNOSTIC CRITERIA/EVALUATION

Asthma is a chronic disease that causes narrowing of the airways from inflammation leading to airway obstruction (bronchospasm) and airway hyper-responsiveness. **Classifying the severity** of a patient's asthma is the first requirement in **determining the appropriate treatment**.

SEVERITY CLASSIFICATION

1. SYMPTOM FREQUENCY

- **INTERMITTENT**
 - ≤ 2 days/week
- **PERSISTENT MILD**
 - 2 days/week but not daily
- **PERSISTENT MODERATE**
 - Daily
- **PERSISTENT SEVERE**
 - Throughout day

2. NIGHTTIME AWAKENINGS

- **INTERMITTENT**
 - ≤ 2 times/month
- **PERSISTENT MILD**
 - 3-4 times/month
- **PERSISTENT MODERATE**
 - > 1 day/week but not nightly
- **PERSISTENT SEVERE**
 - Often 7 days/week

3. SABA* USE FOR SYMPTOM CONTROL (NOT PREVENTION OF EIB+)

- **INTERMITTENT**
 - ≤ 2 days/week
- **PERSISTENT MILD**
 - > 2 days/week but not > 1 time/day
- **PERSISTENT MODERATE**
 - Daily
- **PERSISTENT SEVERE**
 - Several times per day

4. INTERFERENCE WITH NORMAL ACTIVITY

- **INTERMITTENT**
 - None
- **PERSISTENT MILD**
 - Minor limitation
- **PERSISTENT MODERATE**
 - Some limitation
- **PERSISTENT SEVERE**
 - Extremely limited

5. SPIROMETRY LUNG FUNCTION

- **INTERMITTENT**
 - Normal FEV₁ between exacerbations
 - FEV₁* > 80% predicted
 - FEV₁ / FVC* normal
- **PERSISTENT MILD**
 - FEV₁ ≥ 80% predicted
 - FEV₁ / FVC normal
- **PERSISTENT MODERATE**
 - FEV₁ > 60% predicted but < 80% predicted
 - FEV₁ / FVC reduced ≤ 5%
- **PERSISTENT SEVERE**
 - FEV₁ < 60% predicted
 - FEV₁ / FVC reduced > 5%

+Exercise-Induced Bronchoconstriction (EIB): formerly known as exercise-induced asthma, symptoms occur 5-15 minutes after start of exercise, and can continue for 10-15 minutes after stop of exercise. The symptoms interfere with performance and EIB usually resolve with 30–60 minutes of rest. EIB may flare when the air is cold. (See page 5)

History/Examination including (See page 5):

- Medications, smoking history, hospitalizations/intubations due to asthma; known triggers; seasonal variability; vaccination history
- Spirometry if diagnosis in question (Pre and post bronchodilator– should see ≥ 12% [and 200 ml] increase in FEV₁)
- Exam including heart and lung, complete vitals (BP, P, RR, SaO₂, T, Ht/Wt). Obtain baseline peak flow (See Attachment A for Peak Flow Predicted Values) and follow-up if signs or symptoms of increased severity of asthma are noted; and as needed
- Differential diagnosis: other pulmonary diseases, cardiac disease, infectious disease, airway obstruction, etc.
- Enter Diagnosis on Problem List (i.e., intermittent asthma, mild persistent asthma, moderate persistent asthma, etc.)

TREATMENT OPTIONS

- A basic principle of asthma therapy is that the intensity of treatment should match the severity of asthmatic symptoms
- Asthma control focuses on **reducing impairment** (frequency & intensity of symptoms and functional limitations); and **reducing risk** (the likelihood of future asthma attacks, progressive decline in lung function, or medication side effects)
- National Asthma Education and Prevention Program, Third Expert Panel (NAEPP EPR3)¹ recommends **first classifying asthma severity, then initiating therapy using the STEPWISE treatment approach** (See page 8)
- Step up therapy if not well controlled. Review adherence to medications, inhaler technique, and comorbid conditions

- Step down therapy if well controlled > 3 months on current therapy
- **Patient education:** help patients identify their triggers and how to avoid them, smoking cessation, proper inhaler use (if indicated), Asthma Action Plan (See Patient Education PE-4) and Asthma Control Test form (See CDCR 7320, ACT Form)
- **Intermittent Asthma:** STEP 1 = SABA as needed
- **Persistent Asthma:** Daily medication (Consider pulmonary consult if > Step 3 care is required) (See detailed steps on page 8)

***Definition of Terms:** SABA - Short Acting Beta Agonist; LABA - Long Acting Beta Agonist; ICS - Inhaled Corticosteroids; EIB - Exercise Induced Bronchoconstriction; PEF - Peak Expiratory Flow; FEV₁ - Forced Expiratory Volume in One Second; FVC - Forced Vital Capacity

MONITORING (SEE ALGORITHMS ON PAGES 2 & 3 AND 9)

Follow-up visits: as clinically indicated, but at least every 365 days

- Assess asthma control and adjust therapy. (See table on page 9)
- Review medication technique and adherence; assess side effects; review environmental control
- Consider Asthma Control Test at asthma-related visits
- Generally, PEFs should be done at every asthma-related visit to document control
- Review Asthma Action Plan with patient, revise as needed
- If recent exacerbation, follow closely until patient is clinically improved, and at their baseline